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ABSTRACT

Presented are proceedings from the Bureau of Education for the Handicapped sponsored 1975 conference on research needs related to career education of the handicapped. It is explained that the conference was organized in modular fashion with participants in small and large groups exploring research needs in four basic areas: preparation of the handicapped for careers (presentations by Leonard Hall, John Kidd, Donn Brolin, E. Ross Stuckless, and Melvin Appell); exploration of career alternatives by the handicapped (presentations by Henry Colella, Chris De Prospo, and Gary Clark); maintenance and mobility in careers chosen by the handicapped (remarks by Gerald Manus); and leisure and retirement for the handicapped (remarks by Peter Verhoven, Gerald Hitzhusen, and Donald Hawkins). Top priority research needs identified by conference participants dealt with attitudes, critical incidents leading to job change, decision making, communication among personnel serving the handicapped, career education models, employability, physical mobility, and demonstration and dissemination. Lists of steering committee members and conference participants are appended. (CL)

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PROCEEDINGS OF THE CONFERENCE ON RESEARCH NEEDS RELATED TO CAREER EDUCATION FOR THE HANDICAPPED

January 17-19, 1975

Bureau of Education
for the Handicapped
U.S. Office of Education

EC082488

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FOREWORD

by

Edwin Martin
Chief
Bureau of Education
for the Handicapped

FOREWORD

The U.S. Office of Education is committed to assuring equal educational opportunities for all handicapped children. Efforts of the Office of Education in meeting this commitment are coordinated through the Bureau of Education for the Handicapped. Education of handicapped children has been adopted by the U.S. Office of Education as one of its major priorities. Among the objectives designed to implement this priority are: 1) to assure that every handicapped child is receiving an appropriately designed education; 2) to assure that every handicapped child who leaves school has had career educational training that is relevant to the job market, meaningful to his career aspirations, and realistic to his fullest potential; 3) to assure that all handicapped children served in the schools have a trained teacher or other resource person competent in the skills required to aid a child in reaching his full potential; 4) to secure the enrollment of preschool-aged handicapped children in federal, state, and local educational and day-care programs; and 5) to encourage additional educational programming for severely handicapped children to enable them to become as independent as possible, thereby reducing their requirements for institutional care and providing opportunities for self-development.

Research and development activities of the Bureau are directed toward providing information and developing products which can be directly related to the accomplishment of these objectives. Current planning activities, of which these conferences are a significant part, will permit us to specify better the barriers to meeting these objectives. Further, we will be able to define, and hopefully prioritize, key issues where research and development activities can significantly contribute to the overall mission of the Bureau.

PREFACE

by

Max Mueller
Chief, Research Projects Branch
Bureau of Education
for the Handicapped

PREFACE

The Research Projects Branch of the Bureau of Education for the Handicapped (BEH) is implementing a comprehensive planning effort designed to determine how research activities can best contribute to the accomplishment of Bureau objectives. The broad purposes of this planning effort are to identify significant barriers to accomplishment of these objectives, to delineate key substantive issues related to these objectives, to identify promising strategies for removing these barriers, and to address these issues through research and related activities. Initial goals are to develop long-range research plans related to Bureau objectives and to identify specific research tasks which merit immediate attention in terms of support for research and related purposes.

Our primary concern in initiating this planning effort is that the resulting plan, and especially the identification of specific tasks to be accomplished in the immediate future, truly reflect the best current thinking of the broadest possible sampling of the field of special education and related disciplines. We fully realize that our efforts must result in a program which is responsive both to the constraints imposed by our responsibilities as managers of public funds and to the needs of handicapped children as perceived by the consumers of research.

Procedures for award of grants and contracts increasingly demand that decisions regarding support for research and related purposes be made by federal program managers. If we are to implement this emerging responsibility effectively, it is critical that we increase our communication with our constituency. We can only maintain the credibility of the research program by systematically seeking input from the professional community.

The need for more definitive planning is reinforced by the severe limitations of available funds for research and related purposes. The number of problems associated with education of the handicapped unquestionably exceeds by several orders of magnitude the number that could be attacked feasibly under present funding levels. Thus, it is imperative that we not only identify issues which are relevant but also identify those issues and problems which are most critical at this point in time.

It is especially important now that we involve the field fully in the process of developing research plans and priorities. We are hopeful that the strategies outlined will assure an optimal level of credibility, relevance, responsiveness, and effectiveness in the research program. The initial objectives to be accomplished are:

1. To develop a systematic organizational schema for addressing each of the Bureau objectives
2. To identify significant content (issues, problems, needs, and so on) associated with each objective
3. To prioritize content both within and across objectives
4. To identify research strategies related to those areas where research approaches are appropriate

Research Planning Strategies

Strategies have been developed on the basis of several assumptions which, like the resulting plans, are subject to modification based on input from the field. Our basic assumptions are:

1. That practitioners are a primary source for identifying critical needs related to improvement of educational opportunities for the handicapped
2. That research expertise is essential to defining problems to be solved

through research; and deciding what research or research-related strategies may appropriately be brought to bear on the solution of problems of education for the handicapped

3. That, through the interaction of practitioners and researchers, it is possible to optimize the ultimate impact of research support
4. That we will be effective in our efforts to communicate to our constituency: (a) the overall planning schema, (b) the results of each of the procedures for obtaining target group input, and (c) the overall support pattern emanating from the planning schema

Given the foregoing rationale, objectives, and assumptions, a number of strategies will be employed to establish professional relevance and credibility. At least six forms of input appear to have promise for assuring adequate communication with relevant constituencies:

1. Research Needs Task Forces
2. Position Papers
3. Needs Assessments
4. Research Integration Projects
5. Expert Reviews
6. Research Needs Conferences

Research needs task forces: Throughout the planning process, task force groups will be constituted to assist Bureau staff in accomplishing the research planning task. The composition of any given task force would depend on the specific effort being addressed, but overall, a broad range of people would be involved: federal and nonfederal personnel, researchers and consumers of research findings, special educators and personnel from multiple disciplines, and so on.

Position papers: The Research Projects Branch solicits suggestions from the

field in several ways. We welcome position papers from individuals and/or organizations relating to any of the Bureau's objectives. This strategy should provide considerable input in terms of the identification of significant needs, content, and appropriate research strategies. As the research planning effort proceeds, we anticipate that certain issues may surface which will call for specifically invited position papers focusing on such special issues. Though it is doubtful that every idea submitted can be directly incorporated in the plans or individual requests for proposals, all position papers, whether specifically invited or not, will be carefully considered as these plans develop.

Needs assessments: The Research Projects Branch will identify major issues through comprehensive, national cross-sectional surveys of those involved in the education of handicapped children. Such surveys will identify content areas, and analyses of responses will also contribute to establishing priorities.

Research integration projects: In some areas of education of the handicapped, the most immediate need related to research planning is to synthesize and critically review existing information. A very large body of research on education of the handicapped has been created over the last quarter century. This body of research has not been evaluated comprehensively with respect to technical quality, utility, and potential for codification and wider diffusion. Integration and evaluation of this literature and experience are required to aid in the planning and definition of research programs concerned with improvement of educational opportunities for the handicapped and to provide a basis for potential use by local, state, and federal education agencies.

Tightly objective accounts of the present state of knowledge should be highly valuable to researchers developing plans for future thrusts and to BEH/OE,

which could then develop specific program announcements or requests for proposals for work designed to fill identified gaps or to answer specific, critical questions.

Expert reviews: The primary purpose of expert review will be to provide consensual validation of content areas and priorities. Throughout the research-planning process, therefore, resulting documentation will be subjected to extensive expert reviews. Such reviews will be tailored to a great extent to the nature of any given document. However, several general considerations are immediately apparent. Whatever the content of a given document, both individual and institutional expertise will be employed to assist our staff in refining and evaluating the documentation. Certain organizations (such as the Council for Exceptional Children or the National Association of State Directors of Special Education) will be invited to participate. Some documents may require review by experts from related disciplines, by consumers, and by others.

Research needs conferences: Interaction between research and consumer constituencies will be encouraged by support of topical national forums for establishing major issues. Conferences such as this one should contribute to all of the planning tasks. Such activities are particularly important in identifying those problems in the education of the handicapped which can be addressed most effectively through research and related activities. Particular reasons for conferences of this type are: (1) to examine what has been investigated and what needs investigation in each area, (2) to describe better the role of BEH in organizing its resources for more effective research and demonstration efforts, and (3) to investigate ways of disseminating and interpreting research information so that it can be applied by practitioners.

How BEH Views Research and the Handicapped

The research program of the Bureau of Education for the Handicapped has as its

mission the improvement of educational programs for handicapped children through the stimulation and support of applied research and related activities. Support is directed at providing the information and resources necessary to increase the availability of appropriate educational opportunities for every handicapped child.

In order to stimulate more effective programming for handicapped children, the Bureau is structuring its research and development program to link research and research-related activities more directly to the support of special education services. Activities supported under the research program must be applied in nature and must show promise of producing valid and relevant information. Whether an activity is applied is determined on the basis of the extent to which such activity:

1. Is a direct effort to solve some critical education problem; and
2. Is planned so that the final product of such activity can be reasonably expected to have a direct influence on the performance of handicapped children or on personnel responsible for the education of the handicapped.

In terms of research support through the BEH, the handicapped are defined as those persons requiring special educational adjustment associated with mental retardation, serious emotional disturbance, visual impairment, hearing impairment, speech disorders, crippling and other health impairments, and learning disabilities. Career education is considered here as defined by Hoyt (1974):

> In a generic sense, the definition of "career education" must obviously be derived from definitions assigned the words "career" and "education". For purposes of seeking a generic definition for career education, these two words are defined as follows:
>
> "Career" is the totality of work one does in his or her lifetime.

"Education" is defined as the totality of experiences through which one learns.

Based on these two definitions, "career education" is defined as follows:

"Career education is the totality of experiences through which one learns about and prepares to engage in work as part of her or his way of living."

"Career", as defined here, is a developmental concept beginning in the very early years and continuing well into the retirement years. "Education", as defined here, obviously includes more than the formal educational system. Thus, this generic definition of career education is purposely intended to be of a very broad and encompassing nature. At the same time, it is intended to be considerably less than all of life or one's reasons for living.

The Bureau has been spending about $10 million a year on support of research and related activities, and we hope to be able to at least maintain, if not increase, this support over the coming years. Our principal purpose in holding this conference was to obtain input from a broad range of special educators and related specialists to assist the Bureau's program planning. This fits into our larger objective of improving planning to make the most effective and efficient use of the limited federal research investment. We hope that the information generated by this conference may have a very broad impact on research programming related to career education for the handicapped; we guarantee that your deliberations will influence the way the Bureau allocates its research resources.

Reference

Hoyt, K.B. An introduction to career education. Washington, D.C.: U.S. Office of Education, 1974, 5.

INTRODUCTION

Primary among the concerns of the Research Projects Branch of the Bureau of Education for the Handicapped (BEH) is the question of priorities: Of all the research needs that might be identified about the education of the handicapped, which are the most crucial to pursue over the next five years? In seeking a response to that question, the Bureau has involved special and vocational education practitioners, occupational and physical therapists, counselors, researchers, and others in the field in developing research priorities for the 1970s.

The Bureau carried out this dialogue with its colleagues in the field by holding four two-day workshop conferences, each of which involved from 66 to 91 persons representing various levels of concern for, and knowledge of, the handicapped, and each planned by a steering committee of 10 to 15 members. Each conference focused on finding the priorities and research needs of one aspect of education for the handicapped. The four topics considered were: 1) career education for the handicapped; 2) education of the severely handicapped; 3) early childhood education of the handicapped; and 4) development of personnel to serve the handicapped.

Background of the Conference

The success of the Conference on Career Education depended as much on careful planning as it did on active and creative participation. A crucial first step was the selection of the Steering Committee. On August 7, 1974, staff members of BEH and Educational Testing Service (ETS) met in Washington, D. C. and selected 15 persons--BEH staff members who were most knowledgeable about the field, the most

concerned and knowledgeable individuals from related federal agencies and regional offices, and others throughout the country most expert in and aware of research and programming in each of the areas of career education for the handicapped.

The members of the Steering Committee for the Conference on Career Education for the Handicapped (the names of the members are listed in Appendix A) met in Washington, D. C. for a two-day conference from August 26 to 28. During those two days, the Steering Committee members laid the foundation of the conference. From their knowledge of, and experience in, the field, they decided on the topics, or tasks, to be addressed by the participants and then worked out the focus session/work session structure to accommodate them. They also decided on the dates on which such a conference could be given to gain maximum attendance. They drew on their knowledge of the people in their field to identify possible conference leaders who, in turn, would be helpful in suggesting possible participants. The committee members were helped in the task of nominating participants by chief state school officers, state directors of special education, and officers of professional organizations and associations throughout the nation who sent in suggestions by mail.

In November, the members of the Steering Committee officially nominated those whom they felt would be the best participants for the conference. They also reviewed and approved their earlier suggestions about the content, dates, and structure of the conference. The names of those nominated by the Steering Committee were then reviewed and approved by the BEH Project Officer and those people, together with others nominated by the Bureau, were issued invitations to the conference.

The Conference

The Conference on Research Needs Related to Career Educaiton for the Handicapped was held at the Henry Chauncey Conference Center at ETS in Princeton, New Jersey

from January 17 to 19, 1975. The 80 participants included teachers and administrators of special and vocational education, rehabilitation counselors, researchers, and others involved in the education of the handicapped.

The two-day session was a workshop conference that focused upon the identification of research needs in four major areas: preparation of the handicapped for careers; exploration of careers for the handicapped; maintenance and mobility on the job; and leisure and retirement for the handicapped: use and abuse.

The conference was structured in a modular fashion with participants addressing each area, or task, in both large- and small-group work sessions. For each task, all participants met first for a focus session during which one or several speakers provided a stimulus for the work sessions that followed by exploring various aspects of the subject. In the focus session on preparation for careers, for example, there were five speakers who discussed, among other things, research needs in the area of prevocational and vocational education for the educable mentally retarded, vocational and technical training programs for the deaf, and an in-service training model to prepare school personnel to counsel mildly retarded students about career education. Speakers at the session on exploration of careers focused the attention of the participants on the need for and purposes of exploring career alternatives, some of the barriers to acceptance of the handicapped in regular classrooms, and the importance of decision making and how it affects the handicapped.

After each focus session, the participants formed themselves into 10 teams of 7 or 8 members each to identify and explore researchable ideas in each task area. This was accomplished in two steps: first, by getting down on paper all the research ideas each team could think of within a reasonable time limit and second, making selections from those ideas, refining them, writing rationales, suggesting possible research approaches, and outlining the potential uses of such research.

The conference participants began with their first focus session late Friday afternoon and concluded their initial brainstorming sessions late Friday night. Beginning at nine o'clock on Saturday morning, they continued alternating focus sessions with team sessions until they had covered all four tasks late Saturday night.

On Sunday, the final day of the conference, the members of each team reviewed all the research ideas that had been generated by themselves and all the other teams since Friday night. From all those ideas, each team was asked to select the four most important (one from each task area) and from those, the top-priority research need.

The research needs recommended for study by the conference participants--the top-priority needs announced on Sunday and the runners-up from which they were derived--are discussed in "Recommendations" beginning on page 71.

TASK 1:

Identification of Research Needs Relating to Preparation of the Handicapped for Careers

Career Education: The Handicapped and the Community

Leonard Hall

Missouri State Department of
Elementary and Secondary Education

I find it of particular and unusual interest that in the arena of education, or more so, in the general world of service to mankind, whether by science, social advancement, or causes of whatever the altruistic nature, the more things change, indeed, the more they remain the same. We continually find ourselves needing to come back to the basics under different titles, different programs, perhaps for causes with a different slant, but we do come back to the basics.

Two terms very much in contemporary use today are career education and the community school. How exciting it is, and ironical, that in the 1970s some 200 years since the founding of this great nation, we are attacking with vigor and great zest the need to focus on education with a career orientation. We state emphatically, and sometimes impatiently, in discussing or defining career education that it is more than vocational education, that it is more than an emphasis on meaningful work experiences for individuals, yet review of literature and eavesdropping on most conversations show that the blinders have not yet been removed.

During these three days, we are addressing the need to focus on research issues as they pertain to career education for the handicapped. More specifically, in this session we are talking about the preparation of the handicapped within a career-education model. My colleagues on this panel have more expertise than do I and will provide for us all a rich background in education with a career focus from the developmental years through the traditional vocational experiences and adult life experiences of the handicapped. We will all profit from that discussion.

Let me offer as a frame of reference from which to begin this conference a very

real concern that I have which, again back to the basics, I feel is a necessary foundation for success in dealing with any of the dimensions of special education and certainly the concept of career education which is multi-dimensional.

In my position as an administrator at the state level and my role as child advocate in attempting to elicit concern and response for that population and to implement our own comprehensive and quite challenging legislation, I have become satisfied that for my efforts to be successful, for the efforts of my colleagues on this panel, and for the efforts of any of us at this conference today to be successful, to be effective, there is an axiom that must be accepted--that the development of the aptitude will only follow the cultivation of the attitude. We are experiencing an attitude evolution and only through that attitude evolution, or perhaps revolution, will service components to the child or the handicapped individual be effective. Now how in the world does that tie itself to the issue of addressing researchable areas relating to the preparation of handicapped for careers, or more specifically, the family and community involvement aspect which I am here to address?

What about Attitudes?

What do we know at this state of the art about attitudes versus aptitudes? Empirical research and evidence give us good data about the realistic expectations of our handicapped and in some cases have brought us away from predetermining the expections of the handicapped, but do we know empirically about the attitudes of the people with whom the handicapped live and work? What about the attitude of the neighborhood; what about mom and dad and their expectations? Are they realistic? Are they confused? Can the profession help mom and dad, and will that assistance serve as a catalyst toward an effective career-education program for the child? What are the attitudes of the neighbors over a cup of coffee about the youngster across the street

or the youngster next door? We have grown from the terms "deaf and dumb" and "deaf-mute" to the objective and very simple term "deafness"; the terms "imbecile," "idiot," and "moron" to the more palatable and humanistic terms of "mild, moderate, and severe mental retardation." But these terms are professional jargon. Has our attitudinal growth been of any significance? Is that attitude evolution necessary in the neighborhood before, professionally, we can get about our business with maximal effectiveness?

What about the attitude of the schoolhouse? Special education today is often something to be tolerated because of the statutes. The choice is one between legislation and litigation. Efficacy studies have been undertaken and offered limited results, so instead we fall back upon the arguments of pathos and ethos that it's just plain important and right to work for and assist the handicapped.

What about the attitude of the principal? The attitude of the guidance counselor? The attitude of the school teacher? How do they view the expectations and the problems of the handicapped? How does the general education community view the need to differentiate between congenital and adventitious handicapping conditions? How does the general education public view the importance of socialization? Of developing self-image? Of involvement in the total activities of life? What does the schoolhouse do for the youngster who cannot compete or participate in the activities that will stud the yearbook at the end of the year?

On the other hand, I hope your state does not brag, as does ours, about the track and field achievements of its blind students at the residential school and the swimming skills of the students at the expense of asking questions about whether or not the young man or woman can independently get to the airport and back and whether or not the young man or woman is going to graduate with a marketable skill that will serve that individual after the muscle tone and athletic development pass their peak.

What is the attitude of the educational community toward total involvement and a meaningful purpose of special education activities? Programs for the orthopedically handicapped create showplaces because of the architectural modifications or the unusual things that engineers can do for people in wheelchairs. Are we really providing a link between those showplaces and the practical aspects and requirements of those services within society? Is the attitude evolving so the day will come when it is understood without asking that such barriers and delimiting facilities will not be tolerated?

The general education community is of a suspicious nature when it comes to "special" people, and perhaps the attitude empires on both sides have been the cause. Can we measure that attitude problem and devise a way to enhance and improve community involvement, understanding, and commitment as a very practical part of integrating the handicapped individual as part of society?

Teacher-Training Programs

The teacher-training programs are last to be indicted in my 3-pronged approach to attitude evolution. What about the people who work with handicapped persons? Are we sensitized to the needs of the handicapped? Do we try to walk a mile in their shoes, so to speak? The statement can be made that generally to teach or become involved in the professional role with people in need of service, one has to be certified and not necessarily competent. Is there a need for a more experiential-based program for those of us choosing to offer services to people in need? The theoretical base of the textbook is important but it is not the singular guarantee of effective and responsive intervention with a young man or young woman for whom you must provide a purpose to learn and then direct that learning activity toward self-reliance and independence.

It is of great concern, it seems to me, that we recognize the importance of society's attitude toward the work to be done. We need to recognize that if

and how we evolve that attitude to the point where the mysteries and fears of the handicapped and their predetermined expectations are eliminated, then we will have the tools made ready for us to get down to the real business of developing within an individual every component of growth and experience applicable to self-reliance, individual integrity, and esteem, and molding of the total self to handle the demands of society.

Needed Research on the Preparation of the Mentally Handicapped for Careers

John Kidd

Special School District of St. Louis County, Missouri

The chairman of this panel suggested that this presentation reflect personal professional experiences which might contribute to the purposes of this conference. Thus, without any attempt at an orderly sequence, the following are simply ideas offered as possible points of departure for your consideration:

Guide to Jobs for the Mentally Retarded, by Peterson and Jones, American Institute for Research, 1964, was subsidized by what was then the Office of Vocational Rehabilitation, HEW. It bears replication and I urge a follow-up of at least its scope and level of sophistication. To improve on it, one might consider an advisory committee to the project which is more knowledgeable about the educable mentally retarded as well as the retarded of lesser abilities, and extending it to include one or more separate studies on other handicaps. Possibly a joint venture is indicated by such partners as the Bureau of Education for the Handicapped, the Office of Vocational Rehabilitation, and the President's Committee on Employment of the Handicapped. Since its publication, the Guide has been of immense value to the program where I have worked.

Pre-Vocational and Vocational Education of the Educable Mentally Retarded is a program which is one of my responsibilities. It is, in large measure, based on the Guide to Jobs for the Mentally Retarded. The program we run needs sophisticated research study--to our knowledge, both funding and research tools are unavailable. Research capability needs to be available to systems having a track record of success in preparation of the handicapped for work and their placement and retention in work.

The Work-Study Handbook, 1971, California State Department of Education, suggests an approach to preparing the educable mentally retarded for work, a model which might well be studied comparatively with the Special School District approach cited in the second item. The Special District approach, based on Guide to Jobs for the Mentally Retarded, might be viewed as the "job-holder's personality" approach while the California Work-Study approach may be thought of as the "job-cluster" approach. Perhaps a combination of the two is the ultimate answer.

The Job Readiness Evaluation Checklist or an instrument for the same purpose needs validation research beyond the capacity of even sophisticated local school districts.

The Work Sample Evaluation Process of the Vocational Research Institute, Philadelphia (1913 Walnut St., 19103, 215-561-6150, att: Harold V. Kuhlman) needs validation research. It has had limited use with the retarded and, I understand, is now under subsidy by the U. S. Department of Labor to standardize it with certain subcultural minority groups. It is not exorbitantly costly yet federal funding of its installation at some $7,000 per unit including operator training costs should be considered at least to the extent needed for exhaustive study of its utility, not just to assess work readiness, but conceivably to assist in curricular modification and adaptation of curricula to individual needs.

Perhaps the greatest difficulty we have faced in this arena since the 1968 Vocational Education Amendments and the set-aside money for vocational education of the handicapped has been in trying to get vocational educators to see that their traditional skill-training model is inappropriate for most educable mentally retarded since they are undoubtedly destined to be unskilled and semi-skilled workers--their specific work performance content learned on the job and their job holding being primarily contingent upon generic traits in the areas of social skills such as teamwork; time factors such as attendance; widely transferable performance skills such as cautiousness, memory, and manual dexterity, and tolerance for repetitiveness including stamina and perseverance.

In the January, 1974 issue of Fortune there was a speculation about the identity of those who will do, as they put it in the Reader's Digest reprint, "tomorrow's dirty work." It notes the increasing resistance of the average person to such work and the increasing government support for nonworkers. It, too, stresses that some 10 to 15 percent of the "jobs of last resort" in our economy involve essential tasks which are not likely to be either dispensed with or mechanized. Our technocrats of an earlier generation led us to believe that unskilled work would disappear with industrial mechanization. Such has not occurred. Such is not likely to occur. Our task, in part it seems, is to be sure our less able brothers and sisters are able to work, can find work even if it takes our help, and that all work is viewed as dignified. Let us challenge Fortune and Reader's Digest and their concept of "dirty work." This, too, may be a fitting research outcome of this conference: How do we sway public opinion to respect all workers?

Preparation of the Handicapped for Careers

Donn Brolin

University of Missouri-Columbia

Career education is a term that has yet to receive a universally accepted definition. Although many individuals still tend to equate the term with occupational or vocational education, many are now conceiving it broadly as preparation for most or all aspects of successful community living. Acceptance of this broader conceptualization expands the usual definition of career to include that of citizen, family member, homemaker, student, consumer, retiree as well as a paid worker and other important roles that we assume throughout our lifetime. Career education could be all of education--by "systematically coordinating all school, family and community components together to facilitate each individual's potential for economic, social, and personal fulfillment" (Brolin, 1974, p.5).

The Bureau of Education for the Handicapped (BEH) has funded our university to develop an in-service training model to better prepare various types of school personnel to teach and counsel mildly retarded students through career education programming. In our program, which we call Project PRICE (Programming Retarded In Career Education), we have postulated that a career education curriculum should encompass three primary curriculum areas (domains) and one support area, academic skills instruction. These three domains are: Daily Living Skills, Personal-Social Skills, and Occupational Guidance and Preparation Skills, all felt to be equally critical for successful career preparation. We have identified 22 competencies, each falling under one of these three curriculum areas, which we believe retarded students must acquire if they are to be successful after leaving the educational system. These competencies are based on previous research, experience, and professional opinions, and should be equally critical for other handicapped persons.

In essence, we believe that the successful preparation of the retarded student for careers is contingent upon sufficient acquisition of all the interrelated competencies from these three domains.

Career education is of particular importance in the career development of the handicapped because of the extreme difficulties and frustrations so many of them have in securing and maintaining satisfying employment throughout their lifetime. It is my contention that handicapped persons need a heavy component of career-directed education. They need it as soon as possible, and they will need it throughout their lifetime for different periods of their career development.

Career preparation of the handicapped requires all members of the school community to share in each student's career development. If handicapped students are to be served more appropriately and integrated wherever feasible, regular classroom teachers will need to better understand their needs and how to work with them, be more receptive to having them in their classrooms, and provide them with more relevant instruction. The family and community personnel are equally important in the total career development of each and every individual. This means that much of the education or competency attainment of the individual is dependent on these sources as well as the school. Unfortunately, in too many instances, both are sorely neglected. No matter how well a student is prepared for a career, he can still fail if the family is not involved and supportive. Preparation of the handicapped for careers is an extremely complex and interdisciplinary task. In most instances, we have much to do before we can say this need is really being met. Here are some of the research needs I believe we must attend to if this goal is to be realized.

1. We must determine what competencies handicapped individuals really need to be successful in today's social and economic society.

2. We must then determine how these competencies can be logically and systematically sequenced and infused into curriculum efforts (K-12 and post-secondary).

3. We must determine who can most appropriately assist the handicapped student in the acquisition of the various competencies, and their specific responsibilities.

4. We must determine what experiences and materials are most appropriate in teaching these competencies.

5. We must develop measures for evaluating and monitoring each student's competency attainment.

6. We must determine the interrelationships of daily living--personal, social, and occupational--and academic skills instruction in preparing the handicapped for careers.

7. We need to determine how to motivate, use, and assist regular class teachers and counselors (and how to break down the traditional roles they have assumed through the years).

8. We need to compare the various models of career-education delivery for their effectiveness in career development.

9. We need to determine how family members can contribute and be persuaded to assist in the career education of their children.

10. We need to determine how community agencies can become more involved, in and out of school settings.

11. We need to determine how industry and business personnel can be appropriately utilized.

12. We need to build in a longitudinal research design which will give us continual feedback on the status of former students, their problems, and needs so curriculum adjustment can be made.

13. We must discover more jobs that are appropriate for the various types of handicapped and get this information out to the field so it can be used.

14. We need to determine what techniques are most appropriate for evaluating and training various handicapped types for appropriate jobs.

15. We need to find out what unique life-career-development needs handicapped persons have and what special assistance they will need to maintain satisfying careers.

The above are just some of the critical areas to which we need to direct our research efforts if handicapped people are to be prepared for meaningful careers. At the same time, we must realistically admit that many handicapped persons will have frequent periods of unemployment but can live in dignity by utilizing this time in work-related activities satisfying to them as total human beings. We as a society must accept them and others in this capacity while striving to help them re-enter the labor market.

Project PRICE is currently giving considerable attention to many of the research needs listed in this paper. We would welcome assistance from others who may wish to investigate them more extensively with or without our cooperation. Let us work together so career education can become a dynamic force in today's society, particularly for our handicapped citizens.

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The Developmental Component in the Preparation of the Handicapped for Careers

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National Technical Institute for the Deaf

This paper is prefaced with an apology. While the task before us pertains to the career education of all handicapped, the experience from which I can draw centers mostly on the deaf. I leave it to those of you who work with students who have other handicapping conditions to assess the generalizability of what I am about to say.

It has been said that the first organized vocational training program in this country emanated from residential schools for the deaf. I quote from a paper on technical education presented in 1886:

> The high honor of establishing the first schools in the country where any persistent attempt was made to teach trades belongs to the institution for the deaf. But, though we began first, I hardly think we are keeping abreast of those who started later in the race.

I do believe this condition, if it once existed, has changed, particularly with the emergence over the past 10 years of a host of postsecondary-level vocational/technical training opportunities for deaf students, at least for those of average and above-average ability levels (Stuckless and Delgado, 1973; Stuckless, 1973).

Most secondary-level programs for the deaf continue to offer a vocational or prevocational education curriculum for a large proportion of their students either as an intra-institutional program (Lacey, 1973) or in cooperation with local schools (Hehir, 1973).

In short, the vocational/technical training component of career education for the deaf is probably being better met today then in the past--at least for deaf students of average and above-average aptitude. Again, I must point out that I speak only of conditions for the deaf and not for students with other handicapping conditions.

A topic that many of us feel is of pressing concern is what, for want of a better label, we might call the developmental component. A colleague once voiced his concern about the developmental lag in a number of deaf clients with whom he was working when he said "The young deaf adult of 18 is confronted with the need to make career decisions appropriate for a 25-year-old when, in fact, his level of career maturity is only that of a 12-year-old."

Several common threads run through the numerous definitions of career development:

First, career development is a process originating with the young child.

Second, career development is quite personal, tied to one's awareness of self and shaped by experiences.

Third, career development involves informed decision making on the part of the student preparing for work and on the part of the working adult.

The thesis of this paper is that while curricula for the handicapped generally address themselves to the academic, social, and vocational competencies essential to work, we pay scant attention to the developmental component. The result of this neglect is likely to be a continuing dependence on others for career-related decisions, little personal identification with work, and a dissatisfied adult worker.

Before preparing this paper, I asked several colleagues* at the National Technical Institute for the Deaf (NTID) to hold a seminar on the question "Relative to career planning, what developmental lags, if any, do you observe among students when they enter NTID, and what are the associated student needs?" This group highlighted four needs:

1. Clarification of student values relating to careers. Beyond any other

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* Mr. James Kersting, Mr. Kent Winchester, Miss Due Doe, Miss Julie Cameron, Dr. Fred Wilson

condition, one's career path is dictated first by the value system he brings to bear on planning. What are his life goals? What are his priorities? How consistent and how durable are these priorities? How much of himself does he wish to invest in his career, and what does he expect to derive from it?

In an effort to better understand the career-related values among NTID entering students, members of our staff have been administering the Attitude subtest of Crites' Career Maturity Inventory (Kersting, Golladay, and Emerton; study in progress). Both the original form and a form modified to accomodate the language of our students have been administered to several hundred students, with generally consistent findings. The responses of deaf students, 19 to 20 years of age, are considerably less mature than those of hearing students in the eleventh grade, and less mature than the normed responses of members of ethnic minority groups. Most notable is the inconsistency of the values students bring to bear on careers.

In another study at NTID (Emerton; study in progress), investigators are finding from the administration of the California Psychological Inventory that deaf students reveal a particular weakness on a factor called "Intrapersonal structure of values."

None of this is to say that the deaf student does not have his complement of values. It is to suggest, however, that these values tend to be disorganized, often conflicting, without the awareness of the student, and not retrievable in a way conducive to rational decision making. This brings us to a second major deficiency observed among many of our students.

2. Need for better decision-making skills. One of the broad goals sometimes stated for education of the handicapped is "dependency reduction." Degree of independence, in turn, is associated with skill in decision making.

Several years ago, it was noted that many of our students were having difficulty

in choosing a major area of study and its associated career objectives. Workshops were offered the students with the intention of helping them examine the variables which should go into choosing a career area. However, the staff soon realized the problem was more fundamental than choosing a career; it involved the decision-making process itself. Many of the students had had relatively little experience in decision making, most real decisions having been made by others on their behalf.

3. Need for realistic self-appraisal of aptitudes and skills relative to various career requirements. Our students seem to be able to assess their academic skill in one area relative to another fairly accurately--that is, the student who says he is good in math but poor in science indeed proves to be better in math than in science. However, this same student's judgment of what constitutes "good" may be quite unrealistic relative to the prerequisites, let us say, of freshman math, or more to the point, the kind of mathematics competencies required within a given career. This is not to say that all deaf students are unrealistically high in their self-appraisals. Some underrate their proficiencies and aptitudes.

The most active participant in the process of selecting a vocational area for training leading to employment should be the student himself. In order to be a real participant, he must be realistic in his self-appraisal of skills and aptitudes and how these relate to various career clusters and specific occupations.

Accurate self-appraisal of skills and aptitudes presumably depends on a set of experiences which permit the observation of others and the opportunity for exploration with resulting feedback. To what extent does partial or total mainstreaming influence this process? To date, no clear patterns have emerged at NTID which distinguish the student whose prior educational experiences have been in secondary programs for the deaf or in regular high schools. We are, however, quite committed to the cooperative or work/study experience as an important source of information for the student about himself. It is unfortunate when this does not take place until the student is midway through his postsecondary program.

Let me turn now to the fourth major career developmental need which has been observed by our staff among 18- and 19-year-old deaf students.

4. Need for better career information-seeking skills. The old and much-misused axiom of "test 'em and tell 'em" is well known to people in the guidance and counseling field. While few people today formally subscribe to this position, I wonder if more of us in special education--more than we would care to admit, in fact--practice this approach. Even the addition to the curriculum of a unit on occupational information, although it serves an important function, is inadequate. The ability to acquire career information is a skill and one within the reach of most handicapped students.

To summarize these four career-developmental needs, they are for better values clarification, decision-making skills, realistic self-appraisal of aptitudes and competencies, and information-seeking skills. These career-developmental needs are interdependent and complex. Because they are developmental in nature, they cannot be simply added to the career-education curriculum as a course offered the student at a specific point in time. Nor can the sole responsibility for meeting these needs be assigned to a single person within a school or a school system. They must be given a priority throughout the entire elementary and secondary curriculum.

Some Final Comments

As I think back over the way I have suggested these developmental needs, I realize they have been presented more on the basis of conviction and anecdotal experience than on the basis of research evidence. But I think this is basically where we are.

Are the needs I have suggested, in fact, real ones? Are they needs only among deaf students or do they extend to other handicapped students as well? Do they represent the full scope of the career education needs of handicapped students which we might consider to be the developmental component? Undoubtedly, they do not. How does the developmental component articulate with the other components of career education for handicapped students? Are there potentially useful strategies which

presently lie outside our repertoire? What are the mechanisms necessary for the incorporation of these strategies into the educational experience of the student?

It seems to me that during this conference we must first make an assessment of the spectrum of career education needs of handicapped students; second, ask how research can best contribute to meeting these needs; and third, move to the question of research priorities.

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Remarks by

Melville Appell

Bureau of Education for the Handicapped

For a number of years in the Office of Education, career development has been the number-one priority. The interest of educators in career education, however, is not new. The American college, particularly in the East, developed out of the need for clergymen, which, in itself, (as contrasted with vocational education) can be said to involve a way of life or a life style. This goes beyond simply vocational-skills development. Dr. Robert Worthington, in an article in the Congressional Record (1973), summarized the reasons for career education's high priority in educational circles when he said: "...educational experiences must be geared to preparation for economic independence, an appreciation for the dignity of work, and the development of the total person." And through the experimental process and the investigatory quest, you, the delegates to this conference, must think of career eduation in Worthington's terms as applied to the needs of the handicapped...that is to say, that this system, which expends over one hundred billion dollars in any one year, must assure that every handicapped child who leaves school has had educational experiences that are "relevant to the job market, meaningful to his career aspirations, and realistically pertinent, according to the individual's potential." Unfortunately, at the present time, 80 percent of the handicapped leaving school in any one year wind up unemployed, dependent on welfare, or under total care.

The educational system has been somewhat resistant to the most obvious and basic need of the handicapped--to participate in the vocational life of their society. Grounds for this belief exist in that:

1. Prevocational orientation to work is virtually nonexistent. Children are unaware of work roles, career requirements, and the dignity of work.

2. Vocational programming for the handicapped, seemingly, and in the main, consists of preparation for menial roles in the society so much so that the handicapped are thought of as undereducated, underemployed, and underachieving.

3. Provisions for upgrading of marketable skills on a continuing basis once entry level has been achieved, and the proper, constructive use of leisure time for maintenance in the community have been almost completely ignored.

In general, these reasons have provided the rationale for this conference. Research can illuminate these areas and thereby contribute to a better life for all the handicapped. We ask you to help us. Our steering committee referred to you as academic authorities, innovators, controversial personalities, and individuals representing varying points of view. Your differences are your strength, and we know that in ETS' melting pot your deliberations will result in foci for our research efforts. We look forward, then, to these next few days from which will emerge "carefully and diligently designed research activities."

TASK 2:

Identification of Research Needs
Relating to Exploration of Career
Alternatives by the Handicapped

Exploration of Career Alternatives for Handicapped Youth

Henry Colella

Board of Cooperative Educational Services
Nassau County, New York

Career exploration is defined as an element of career education which follows occupational awareness and precedes work experience and placement. It encompasses an understanding of the value of work and the relationship between occupations. Implicit in exploration is an understanding of the relationships between interests and abilities and career planning which requires career decisions based on counseling, work experience, and achievement. The development of employability skills is viewed as a goal in the development of alternatives related to work preparation and experience.

The topic of this conference represents one of the most important aspects of the education of the handicapped. In identifying public priorities in the education of the handicapped, Edwin Martin (1971), Associate Commissioner of the Bureau of Education for the Handicapped, advocated national commitment in developing career education for every handicapped child. The magnitude of need can best be described by the following (which, incidentally, was part of the supporting rationale that appeared in the request for proposal for this conference): Martin, Hoyt, Appell, Barone, and Beaumont have all predicted that of the approximately 2.5 million handicapped youth who will leave school in the next four years, only 21 percent will be either fully employed or enrolled in college; 40 percent, or one million, will be underemployed and at marginal subsistence; 8 percent will be idle much of the time, 26 percent, or 650,000, will be unemployed and on welfare; and 3 percent will be totally dependent and institutionalized. In addressing himself to these predictions, Hoyt (1974) viewed the fate of the majority of these handicapped youth as a serious indictment of our educational system.

Of an estimated 690,000 retarded adults who are economically idle, 400,000 could be employed if appropriate services were available. This latter statement implies that the jobs are available but that the training necessary to provide needed skills is not. The best argument I know for why monies ought to be earmarked for educational activity is economic and not moral or philosophical. Each of us is aware that the cost of custodial support through age 60 for one patient within an institution is approximately $400,000. Martin again identified the national average cost of educating the handicapped within the community to be $2,500 a year, obviously considerably less than institutionalization. The monies saved per child would have an enormous impact on savings to state taxpayers, or, at the very least, support an applied research program the likes of which dreams are made of.

Among his many conclusions, Venn, in a recent book entitled Men, Education and Manpower (1970), argued that occupational preparation must be a fundamental part of everyone's education and a specific task of the public school. He is, of course, suggesting that the educational establishment become a part of a comprehensive manpower system that would deal with the development of all citizens, not solely with the remedial efforts directed at the minority who have experienced developmental difficulties. In focusing on the serious shortcomings of secondary education in its attempt to prepare young people for adulthood, Venn has indeed identified an area of education worthy of attention and reflection.

The Purpose of Exploring Career Alternatives

The purpose of exploring career alternatives is to assist the handicapped youth to find his or her place in the world of work. Is there a process for choosing one's work which is reliable? Is it based on experiencing, assessing experience, evaluating, and drawing conclusions? Does the experience of the classroom and counseling programs enable youth to actualize and make choices that go beyond merely acquiring a job or considering a selection of an occupation? Choosing

one's work is, in reality, choosing a life style, a choice which must be individually appropriate for personal fulfillment. A career path is not a decision but a developmental process; the choice of work must be made again and again since the handicapped may need to be retrained a half dozen times in a lifetime as compared to three times in an average worker's career experience. After all, an important result of obtaining any job is that the individual acquires experience in working with others. Since there appears to be sufficient evidence that the handicapped are discharged from their work primarily because they cannot get along with other workers, it would seem that learning about people and their expectations of others is essential.

Peter Drucker (1974), an eminent writer and consultant on management, pointed out that some people believe that if they take a job for General Electric or New York University or Psychology Today, they have taken their vows, and the world will come to an end if it doesn't work out. He believes that life is not that categorized, that there is no way of finding out what one wants to do but by trying; a job is an opportunity to find out. Before he finally settled upon his present position of writer and consultant in business management, Drucker worked as an apprentice clerk in a wool export house, an investment banker, an economist, and a professor of politics. And today his books are considered primers for students considering a career in the business world.

Perhaps we as educators sometimes place undue emphasis upon academic pursuits as a plausible game plan in promoting occupational self-sufficiency on behalf of the handicapped. The British poet Stephen Spender, telling about his desire to be a naturalist, described in poetic language his youthful dream of the future. Asked what made him change his mind, Spender replied "a course in botany."

However, if academics are de-emphasized, leaving practical experience as the only teacher, and ideas and judgments are put to the test in experience, it rests upon wise professionals to analyze abilities in assisting the handicapped to choose those experiences that promote optimal learning and confidence. How

astonished we are when we hear a young person's comment about the work experience on a construction gang: "The money's good, but I wouldn't do it again for double the amount; life is too short; it isn't worth it."

While suitability within any occupation remains for the most part a hit-or-miss proposition, the game of occupational roulette for the handicapped can best be won through the identification and remediation of specific functional and behavioral deficits which serve as impediments to effective occupational adjustment. Such intervention can only serve to motivate young adults to participate in, and profit from, rehabilitative services.

The Rehabilitation Research and Training Centers located at the University of Wisconsin (Madison), the University of Oregon (Eugene), and the University of Texas (Lubbock) are unique in their efforts to apply rehabilitation research to the discovery of new knowledge to reduce the dependency of handicapped persons. While the focus is on mental retardation, the theme is familiar: to discover new ways of helping the handicapped to develop and utilize their potential abilities, to gain personal independence, vocational employment, and social acceptance in the home and community.

In conclusion, perhaps it is propitious to identify gainful employment as nature's physician, which is essential to human happiness. The task is immense, our limitations recognizable.

On the cover of a recent document published by the Children's Defense Fund (Children Out of School in America) is a drawing of a five-year-old child which depicts a final illustration of our purpose. It reads: "Dear Lord, be good to me, the sea is so wide and my boat is so small."

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Remarks by

Chris De Prospo

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Dr. Eduard Seguin, first President of the American Association on Mental Deficiency, in 1876 said "It is not enough that a truth is ripe in the mind of a thinker and that the advocates of light and progress are ready to hail its birth. The social medium in which it has to work must also be ready, otherwise it falls upon soil in which it cannot germinate and no decided result ensues."

I felt it necessary to present the foregoing before sharing with you some thoughts on opportunities and barriers in the exploration of research needs relative to career education for the handicapped.

I agree in principle with Ray Simches' statement in the January '75 issue of Exceptional Children that "we should not opt for the creation of isolated career education programs for the handicapped but rather to build protection and priority within existing programs." This points to an area that needs investigation. What adjunct services are needed to insure an adequate career education program for handicapped individuals in regular classes? This involves increased costs or the review of present allocation of monies.

Although Payne and Murray's survey on principals' attitudes towards acceptance and integration of the handicapped was done on a comparatively small sample, the differences in acceptance among the handicaps is indicative of problems ahead. From an acceptance percentage of 97 for the visually handicapped to a percentage of 59 for the E.M.R. is interesting. These were principals in suburban areas. Among principals in urban areas, the percentages for the same groups were 53 and 46 respectively. Perhaps we should investigate this on a much larger scale so we are aware of barriers that may exist.

Where are our special-class or special-program graduates today? What are

they working at and how are they getting along both on the job and in society? Here again there is a problem. In researching this, we must be very careful to ascertain what groups and levels we are talking about so that we do not institute programs based on noncomparable populations. In line with this, we should attempt to ascertain how many of the so-called normals are working at the same jobs. In other words, who will the handicapped be competing with?

In presenting the next point, I am reminded of my own experience with the Dictionary of Occupational Titles when I was setting up a guidance and placement program for the mentally handicapped in New York City in the early 40s. What skills both nonmanual and manual (and I put nonmanual first deliberately) are involved in the jobs and can the handicapped perform them? We found that most jobs held by the retarded were not considered complex enough for a detailed job analysis of skills involved in performing them. I have with me a number of magazines with job analyses for these jobs done by teachers and I also have the forms used in making the analysis. This aspect also includes skills that should be investigated as to the methodology involved in community surveys.

The Question of Curricula

Probably the most important aspect of the problem is curricula. What are the implications in career education for curriculum? How shall we decide on content as it relates to career education? When I was teaching the mentally handicapped, the topic given us for a year's work was "The Coronation of the King of England." Did I go at this! If you entered my room, you immediately knew you were in a castle. Each boy had his own reader, at his level of competence, but the material was all on the same topic. Two boys made suits of armor that they could wear. A clay castle made to scale, with draw-bridge, moat, and so on, was a highlight.

Towards the end of the term, the area superintendent visited the class. The boys put on a show because they knew I was being examined. They read, demonstrated, recited, and proved to my examiner they knew all about the coronation.

On his way out, the superintendent asked one of my 16-year-olds what subway he took to get to Manhattan. The boy did not know. Need I say more about what is involved in researching curricula?

Regardless of curriculum revision or adaptation, it is vital that guidance cannot be ignored until our children are old enough to go to work. A pupil can no more take guidance than he can fail it. True guidance is growth in efficient self-measurement and self-propulsion. Thus, a pupil has guidance, a personal achievement, when he is increasingly able to make and carry through workable decisions based on facts in his own possession. As a result, there is no substitute for the providing of relevant learning situations for the acquisition of these facts. And this is teaching and the primary responsibility of the classroom teacher. Guidance without facts is like eating without food. And guidance starts even before the child is placed in an educational program. Who shall take responsibility for the guidance process?

Five Aspects of Occupational Education

I consider a complete career program for the handicapped should include:

Occupational Information
: An overview of the whole economic structure and the relationships between the different types of work and the welfare of society as a whole

Vocational Guidance
: The measuring of individual qualifications against specific job requirements

Vocational Training
: Basic training, both manual and nonmanual, in area skills

Vocational Placement
: Actual job placement

Social Placement

Adjustment on the job and in society for as long a period as might be needed

If, as some authorities recommend, special education concerns itself only with severely and profoundly handicapped youngsters, then we again are confronted with categorical structuring. I wondered years ago what the handicapped themselves thought about this, so I will close, with apologies to "The Walrus and the Carpenter":

The time has come the handicapped said,
To talk of many things.
Of whether I am retarded or,
A result that deprivation brings.
Or am I neurologically impaired,
Or am I merely upset.
And when will I be taught the things
That I'm supposed to get.
For as you sit and cogitate,
You cannot stop my growing.
Decide for me my scholastic fate,
Before the time grows much too late.

Remarks by

Gary Clark

University of Kansas

If any of you happened to look through the bibliography sent to you of the ERIC searches on Career Education for the Handicapped, you probably wouldn't have noticed what I noticed, because it is my responsibility to talk about it. At any rate, the categories of decision making and placement had the least amount of information on them of all other categories in the whole booklet. Decision making had one page--about four entries. Placement had two and one-half pages. Not much to go on, but probably an accurate reflection of the state of the art.

I want to focus on decision making more broadly than the ERIC search did. Decision making involves more, in my estimation, than simply making an occupational choice. We're all forced to make decisions. The handicapped are forced to make decisions also, although sometimes their decision might be to let someone else make the decision. Then they make that decision. At any rate, daily decisions, short-term decisions, such as what to wear, what to eat today, what to order, what to buy, how to get somewhere--not only the mode of travel but the best route to use--we are constantly confronted with stimuli and we have to decide whether to respond and how to respond and when to respond. Some of these decisions come in sequence and are almost instantaneous. A pretty girl comes up to a man and provides some kind of stimulus, and he decides whether to respond and how to respond, and when to respond and he knows that if he doesn't respond quickly, he might lose the opportunity. A decision is made quickly, one way or another.

The handicapped also have to make these immediate kinds of decisions. Money lying on the table, no one around. Do I respond? How do I respond? Grab it and run? Or do I try to be sneaky about it? When should I respond? Do I come back later? These kinds of decisions are made by all of us, including the handicapped,

regardless of what they are, who we are, or what kind of situation we are in. Our responsibility in career education, I think, is to help them learn some alternatives for generalizing problems, as well as some problem-solving and decision-making skills.

Some Long-Term Decisions

There are other decisions that affect one's future and these are the long-term decisions. Whether or not one will work, for example. Some children make the decision about leaving school very early, even by age eleven. I think there are a lot of children who decide very early that they're not going to work. Some decide, after trying it out, that they're not going to work, because it was not very reinforcing for them. So that decision is made. It doesn't even have anything to do with what they're going to do. It's just that they're not going to work. Dad doesn't work, the old lady doesn't work, no one works, so why should I work? The decision as to what kind of work one wants is, of course, what we've been thinking about a lot the last day and half, but the decision whether or not to change jobs is another kind of decision making that affects the future of each individual.

The decision to let someone else make a decision for you in occupational choice happens very, very frequently. Perhaps many of you have participated in this by saying "I think I have the occupational information more readily at hand and I can understand it. I think I have more information about him as a person in terms of our assessment. I can put the two together and make a decision for him because he doesn't seem to be able to do that on his own."

I was amazed the first time I started trying to place handicapped youngsters in jobs. I asked them "What would you like to do?", thinking that would be a good starting point, and I think it is a good starting point. But many of them, as you know, say "I don't know." Often they really cannot come up with something

that they would like to do. So you suggest something. "Well, do you think you might like to work in a service station?" "Yes." Or, "Do you think you might like to work in a grocery store?" "Yeah. That would be all right too." In other words, whatever you suggest would be all right. So I think this decision is made by a lot of handicapped persons who say "I don't know how to do it," or "I don't think I know how to do it. You know best. You decide for me." That's a decision they make that we probably need to attend to as much as an occupational choice decision.

Other long-term decisions include the decision whether or not to marry. The decision about whom to marry. The decision whether to divorce. The decision whether to have children. (These don't always come in chronological order today.) And sometimes there is no decision. It just happens. The decision of how many children to have is, for many of the handicapped I've worked with, something they are concerned about. They want to have some kind of input into this; it's a decision and it's important. Legal decisions include whether to enter into contracts, buy homes, establish credit, borrow money, and on and on. A lot of decisions have to be made.

Now what kinds of things can career education for the handicapped provide that would give them the skills to do this? This ties in with what was discussed in the session on preparation. This whole area of exploration could be moving the handicapped into opportunities to make decisions by letting them explore situations where decisions are called for. That is a part of the training. It's also a very obvious gap and void in our school curricula.

There isn't much research in this area of decision making, but there are some studies I would like to refer to briefly. Two of them are in the career education ERIC search that you received. The one by Folman and Budoff having to do with learning potential is an excellent article that appeared in Exceptional Children, and I would certainly recommend that you look at that one. Also an older one by

Cleland and Swartz having to do with work deprivation and the motivation to work. This involved the setting up of some experimental conditions--hedonistic kinds of pleasures that were made available to people when they were taken out of work. The subjects decided they wanted to go back to work because they got tired of playing all the time. Pride in work proved to be a motivator for work. The subjects of the study preferred working to not working.

Another series of studies--and I say "series" because it's in its second wave and not completed--is a longitudinal study being conducted by Beth Stephens at Temple University on reasoning, moral judgment, and moral conduct in normals and retardates. It's one of the most interesting research studies that I have seen in some time. Two waves that have come out now in units consist of very interesting data about the developmental aspects of these particular areas, including some very specific Piagetian assessment devices. She has cross-sectional data and longitudinal data, and some very interesting patterns are emerging. For example, we have some data on decision making in moral reasoning, moral judgment, and moral conduct. It is apparent that in the decision-making capabilities or competencies in contrived situations that have been interpreted as those of a moral nature--stealing, lying, ratting on your friends, whatever kinds of moral problems that were presented--there is a difference between normal and retarded age mates. Other results suggest there are developmental patterns in the retarded in these areas which are unique, with a growth spurt after age 18.

We don't have readily available instructional materials which teach decision-making strategies and are generalizable solutions to common decision problems. I say "readily available" because I'm not aware of them. I don't think we have any readily available assessment devices or procedures which give us comprehensive information on competency levels of handicapped persons in decision making, with the exception of some of these assessment procedures of Stephens that might prove productive. I'm not pushing here for more inappropriate, norm-referenced tests when I say we need some assessment devices. I think that some of the concepts

and ideas of criterion-referenced tests are much more in line probably with what we need, but we need some research on those, too, to make sure that we are identifying the appropriate behaviors and getting some validation on them. And although we have some preliminary data on behavior such as moral judgment or moral conduct of the retarded, we don't have them on all handicapped. We have some leads on vocational aspirations for the educable and retarded and their peers in the same socioeconomic group as described to us by Folman and Budoff, but we're still pretty much in the dark on sequencing of instruction, the prerequisite skills that are needed in this area of decision making for life's needs. I would like to see a lot of attention given this particular area across handicapping conditions, across age levels, to give us some cues and ideas as to how we can best provide the training and preparation.

Placement

The state of the art in placement is reflected primarily in the surveys that you've had on attitudes of employers in the journal articles, proceedings of conferences, working papers, projects reports, and so on, which describe how to contact employers, how to choose which employers will be most helpful with the handicapped, how to work up a contract or a placement agreement, the legal problems and procedures. If we had program descriptions on placement alternatives, such as programs that describe how to get them into competitive employment, how to get them into sheltered employment, how we provide competitive but segregated environments, how we get them into self-employment, programs involving job-restructuring in competitive employment--these, too, have given us a lot of leads. I haven't seen much along these lines in the literature that is new in the past eight or ten years--we've reached a peak and leveled off and I think this may indicate what we ought to do in the area of research on placement. Then there are the many follow-up studies which have ranged from the simply descriptive ones to some very sophisticated complex statistical analyses such as the Stephens study with factor analysis and all--some 19 of them over the past 40 years just in the area

of the mentally retarded. The other areas as well, I'm sure, have their follow-up studies. We've been basing a lot of our preparation and training on the assumptions that have been generated from the follow-up studies (I say assumptions because the follow-up studies, as timely as they were, have been contradictory in nature, and we've been unable to draw any really hard generalizations from them.)

Most of the studies I have referred to are not the kind of research I think we need to do today. The methodology and design need to be improved. They had the right idea, they were asking many of the right questions, but I think we have the techniques, procedures, and technology now to do some of these things again with the refinement and skills that we have at our disposal. We can perhaps challenge some of the assumptions and some of the practices by validating them through a new set of follow-up studies that would give us some of this information.

I think we have excellent kinds of reviews and critiques of these follow-up studies to show us where the mistakes were made in terms of sampling, content and construct validity, predictor variables and measures that were used. In terms of the selection of criterion measures that were used, how do you determine that a person is successful or not--is it whether he is employed, is it whether he is married, or has children? We have used multiple criteria variables in most instances and this has led us into trouble. So I think we have critiques by Butler and Browning, Cobb, Goldstein, and others that have pointed these problems out, and yet no one has really responded to those critiques because this is dirty research, it is hard research, it is difficult research. I think there is some payoff in it--in fact, what we are doing now is the result of many of those follow-up studies. I think the big implication of what I see in placement, which is the culmination of at least the school base model of career education for the handicapped, is going to give us a lot of information, if we can really tap what happens at that culminating point. It has implications for the awareness, the preparation, the exploration, and some of the other topics that we will be covering

at this conference--so I would heartily recommend that we take a new look at the old look that we've given placement and draw on the technology we have and use it in the research arena.

TASK 3:

Identification of Research Needs Relating to Maintenance and Mobility in Careers Chosen by the Handicapped

Remarks by

Gerald Manus

The Human Resources Center
and
Hofstra University

At the Human Resources Center, we are dealing primarily, although not exclusively, with people who have physical disabilities which interfere with physical mobility. Thus, we are concerned about the crucial aspect of getting to the career-training opportunities as well as getting to the job opportunities. We mean this not only in terms of experience or psychosocial opportunities, but really in terms of the physical aspects of getting there. I think for our population that is a very serious problem: One doesn't get to opportunities and doesn't have mobilities and possibilities in a vocational sense unless one has mobility opportunities in the physical sense. I think the whole question of transportation and accessibility to training and jobs is one that we haven't completely addressed ourselves to in this session and I think we might want to take a look at this in our workshop.

I see maintenance and mobility in three conceptual areas: First, we're dealing with knowledges, including perception and experiences that the individual has to work with once he has found some place in the career structure. The next is the broad category of behaviors or actions or skills which the person shows or exercises in his work activity. (Again, I'm assuming here the person has reached some point where he or she is in a job.) The third area concerns the external events in the individual's life including the stimuli, the opportunities and obstacles, the structures, the entrances and exits that determine the maintenance and mobility process for the individual.

A long time ago, I began to realize that as a clinical psychologist, I was really looking at only one side of the picture, that most of the time we spend looking for characteristics in the individual and programs to develop those characteristics

to make them fit into a particular structure. I think we must also be concerned with the structure itself, whether it is open and appropriate to the needs of individuals.

Personal and Societal Adaptations

I think we ought to focus on the two adaptive components of mobility and maintenance. The first such component is the one that we're more typically thinking about as a personal characteristic of the individual and what we can do for or to the individual to provide him with a chance to get into a structure. But I think that we also have to look at ways that we can modify the structure to make it possible for people to get into it. Thus, we are concerned with two kinds of adaptations--personal and societal. Coming from a background in rehabilitation, I'm very concerned about society's adaptation to the individual, not just the individual's adaptation to society. Both of these have to be considered very, very carefully.

We don't pay enough attention to the health education characteristics and components in the life history of the individual. Many individuals we follow up for a short period of time seem to be doing fine. When we do longer follow-ups, we find that they are having, or going to have, serious health problems because there has been no continuing process of helping them deal with these problems. This is particularly true as they get older, face more stresses, are less protected, have fewer people around them with an interest in making sure that they maintain their health.

I think many of us are fortunate that our work is both vocationally satisfying and personally satisfying. Unfortunately, whether we like it or not, not all work has that quality about it. We have to find ways of making sure that the other components of social functioning of the handicapped are tended to. The maintenance program falls down seriously for those individuals whose only kind of activity is work. Adolescents often lose their jobs, not because they can't do them, but because they have developed certain kinds of personality problems from not knowing what to do with their time outside of the work situation. They have not developed the social

skills that are critical, and this lack creates vocational problems. But they are not really vocational problems at all, they are social problems.

The Need for Continuing Education

I think we must continually appreciate the need for skill maintenance and skill development and job-knowledge development. Often, when we are working on a problem of placing a handicapped person, we consider only entry activities and for a large percentage of our clients we are very satisfied that we can get them an entry occupation. What we need to build in is a continuing education and career development process. We need to think of ways that we can develop systems which will enable the handicapped to come back periodically and retool or improve their skills throughout their life history. The person who has a disability is the last one hired and in all probability the first one fired. I think if we pay attention to that fact in some of our research we will develop systems that will provide additional experiences for the handicapped so that if the person loses his job, he has other opportunities. We have paid very little attention to the continuing education process for those who have disabilities. We tend to think that when they leave secondary school they have everything they need. It's surprising to me that the continuing education movement has not paid very much attention to those who are handicapped. This is a large population and probably needs it more than any other group.

Let me briefly summarize. When we talk about a career, I think we are talking about stability, we are talking about direction, we are talking about income level--maintaining it, increasing it--and we're also talking about the problem of responsibilities. Not all these are particularly appropriate measures for the handicapped population. Some of our handicapped citizens can meet all of these criteria. Some may meet only one. When we think of career maintenance, we have to think of different kinds of criteria for the maintenance and mobility process and I think when you think of mobility you've got to think of not just vertical mobility but lateral mobility as well.

TASK 4:

Identification of Research Needs
Relating to Leisure and Retirement
for the Handicapped: Use and Abuse

Remarks by

Peter Verhoven

National Recreation and Park Association

We caucused today and decided that rather than further cloud the issue with a fourth category, "Leisure and Retirement," within the context of career education, we would try and channel our interests by integrating the subject matter of leisure and retirement into the three previously discussed topics--preparation, exploration, and maintenance and mobility.

I will attempt to link the notion of preparation in career education to preparation in leisure education. The area of exploration will be covered by Gerald Hitzhusen in the context of some of the subcategories within exploration including guidance and placement in a context of what we are terming avocational counseling or leisure counseling. The last presenter, Dr. Donald Hawkins, will deal with the subject of maintenance and mobility as it relates to leisure and a quality of life and the fact that leisure may form the basis for maintaining physical and mental health.

Let me turn your attention to preparation. The five subcategories within preparation that you've already dealt with included family and community involvement, curriculum content, teaching materials and methods, and learning environments. I will try very briefly to put our subject matter in the context of that material.

Leisure education, or the worthy and constructive use of leisure, has been since 1918 a cardinal principle of education. There are those of us who contend that it has not been positively exploited since that time. In its simplest form, leisure education means the development and acquisition of understandings, knowledges, attitudes, and skills related to off-the-job living. But it has a great deal to do, as well, with on-the-job types of activities, as we will try and point out. It is significant to note that leisure, as a block of time, is increasing in this country. Many of the handicapped live in a total state of enforced leisure.

Without work. And I think this should be kept very much in mind.

As the topic relates to preparation for family and community involvement, we are talking in the context of leisure education or the gaining of valuable leisure skills to use at home with the family. Both now and for the potential carry-over that these leisure activities have for later adult life. One might also think of this in the context of making people aware of the leisure resources within their community. And to have them become involved with those leisure resources.

Another concept that relates somewhat to work for other than economic means is the notion that a form of leisure education is volunteerism. I would like to think that we might exploit volunteerism, not for the normals helping and volunteering for the handicapped, if you will, but for the handicapped themselves who can engage in voluntary activities as a leisure-time pursuit.

In the area of curriculum content, our concern is to focus on the development of leisure skills and understandings. Understandings and skills in art, in music, in dramatics, in sports, lifetime types of skills can become and should become a formative part of any educational program. Also the development and awareness of leisure resources and the development and appreciation of natural resources which are used in the pursuit of leisure.

Curriculum

In the area of curriculum, I'd like us to focus on integrating the concepts of leisure into the existing subject matter of the curriculum, respecting, obviously, the integrity of the subject matter but developing the concepts of leisure education within the context of a career-education curriculum. And while we're talking career education, I will not dwell on it but I think it's significant to note that there is an emerging number of jobs in the leisure industry--recreation, hospitality, tourism--for which guidelines and instructional materials could prepare people for jobs. Having acquired skills of an avocational nature, they could then apply those

to the vocational talents necessary to deal with that job or jobs. And consequently, if you're interested and motivated for a job of a vocational nature, it might spin off into other avocational interests. And I think in that respect, leisure education has some uniqueness.

In the area of methods and materials, I would ask that this group consider the idea of enhancing other learning experiences in the career education program through a recreational approach--be it game simulation, or camping and outdoor recreation, or outdoor education experiences related to the curriculum, or the extracurricular activities of clubs and the like, which are learning experiences in a leisure context.

Four Research Hypotheses

Very briefly, I've jotted down four potential questions for research hypotheses which you people might want to chew on this evening and, I hope, add more to. What effect do leisure activities have on school achievement? Are there leisure activities that have a higher potential for cognitive development other than learning-intervention activities? What are the appropriate leisure activities that are more likely to be learned within the family context, with peers, with workers, and how can these be related to career education? And lastly, we might discuss the development of personal and social skills through leisure activities that are useful and necessary for obtaining a job, holding a job, or living without a job.

Remarks by

Gerald Hitzhusen

Recreation and Parks Department
University of Missouri - Columbia

I'm going to try to cover four aspects of what we call leisure counseling or retirement counseling or recreation counseling. In the area that we're dealing with--the handicapped--several definitions have been developed. Dr. Gerald O'Morrow was one of the first ones to do research in this area, and the definition that he gave has stood up for quite a while. He described it as "a technique in the rehabilitation process whereby a person uses all the information gathered about a client prior to release or discharge to further explore his interests and attitudes with respect to leisure, recreation, and social relationships, to enable him to identify and locate and utilize recreation resources in the community and thereby become an active part or participant in the community."

That's a long definition. What he referred to, I think, is carried over into retirement counseling, which many businesses have started already. I'm looking forward to sessions in the evening in adult-education type of classes with counselors and with the family. I'm looking forward to the possibility of retiring at a gradual pace--having your vacation for one month at age 46, for two months at age 47, for three at 48, and so on, until maybe you're able to handle retirement. In many cases, this has been part of the medical problems that some people have had with work. Some of you are laughing at the prospect of retiring at age 45 or 46. But I don't think the idea of retirement counseling in industry when you start retiring at a fairly early age is very far off. Then, of course, the question is: What do you do?

There has been quite a bit of literature review and research done in this area. McKechnie used an empirical approach and studied the psychological foundations of

leisure counseling. He described leisure counseling in the cluster category in the Therepeutic Recreation Journal recently. There are some philosophical articles written by Peter Witt which have dealt with the conceptual structure for offering recreation services for special populations. This point has also been emphasized by Frye, Peterson, and Avedon. O'Morrow has attempted a rationale; he has done research in this area and did his dissertation on the number of programs that have been available in institutions and agencies in the area of leisure counseling.

Humphrey defined and studied counseling that should be integrated into the total living experience of the human being. Several authors have surveyed social recreative activities of psychiatric patients before and after discharge. The original type of leisure counseling was developed in Kansas City in the early 1950s at a VA hospital where psychologists, recreators, educators, and medical practitioners all used the team-treatment kind of concept in team counseling. And this process is still going on and is still being used in this system and in many other communities where there are medical institutions, such as the VA hospital, mental health centers, half-way houses, and so on.

Practical implications have been researched in the area by Gary Thompson, who provided a topical outline on how to develop leisure and recreation counseling. Jerry Fain at the University of Maryland has been offering courses in leisure counseling on a team basis with the counseling department. Dr. Gene Hayes developed a recreation counseling model for the mentally retarded in California and is now using this process in Canada where he is currently teaching. Jerry Dickason in New York developed many of the types of situations where counseling could be developed such as the day-night hospital, mental health center, and the half-way house where we developed a leisure counseling service for elementary and secondary school children.

I have been involved in counseling alcoholics and drug-abuse patients at mental health centers. We've also worked with social workers to develop this type of leisure counseling approach on a team basis for families of emotionally disturbed children.

Bob Overs developed the avocational activity inventory and has done many things in this area at the Creative Workshop in Milwaukee and has been a pioneer in this type of approach.

Some of the recommendations that came out of a leisure counseling kit that was put out by Peter Witt in Canada included: 1) Counseling should be related to the total life experience; 2) it should be a continuum of services between the agency and the community; 3) leisure counseling should involve the family; 4) the entire staff at an agency or institution--the recreation staff--should be trained in the leisure counseling skills; 5) other professionals involved in working with recreation and leisure counselors should also have some in-service training as to the values of leisure and the values of leisure counseling.

Here are some recommendations for research questions and projects: 1) What are the competencies for leisure counselors? 2) What part does the family play in leisure counseling? 3) What are the effects of leisure counseling on the handicapped? 4) Sponsor pilot projects in different rehabilitation situations utilizing leisure counseling.

Remarks by

Donald Hawkins

George Washington University

I guess many of you have had some difficulty with the terminology used at this conference mainly because many of us are from different disciplines. There is the language of manpower development and training, the language of vocational and technical education, the language of special education. Well, our team has decided not to bother you with the language of the leisure field.

I think it might be important for me to relate what we're trying to do in the leisure field to what career educators are trying to accomplish because, you see, work and leisure are not really dichotomous areas of life; they overlap considerably. Most of us have grown up with a very linear concept of leisure--dealing with leisure in certain types of quantitative dimensions, either in terms of discretionary time or discretionary income. In the early childhood, special education, and general education fields, many have heard the concept that play is really the business, or if you will, the work, of childhood. As we move forward in the educational process, in many ways learning becomes the surrogate of work productivity. And when we become involved in the work cycle, we often see the off-the-job element of our life style as being an opportunity to catch up on all the biophysical maintenance chores that we accomplish. And then in this linear concept, suddenly we are rewarded with something called retirement and we're really back to play, just about where we began. If we're prepared well, we can enjoy our lives as we did when we were children without having to be so concerned with utilitarian objectives. If we are not prepared, we have a problem.

This linear notion is really an oversimplification, particularly when we deal with the handicapped population because many of the handicapped have been disenfranchised from work productivity either involuntarily or voluntarily. Many

are committed to institutions and others are committed, without many decisions or much choice in the matter, to a lifestyle in their homes. In the leisure field, we have problems getting them into the mainstream of life.

Now, there seems to be a movement away from the work ethic (which really girds up this linear concept of leisure) toward a new kind of concept in which leisure in its own right is valued in every bit the same way as work is and, in some occupational groupings, more. This development of leisure as an ethic brings us to a point where work and leisure are fused, where people don't make those artificial distinctions, and the lines indeed become blurred. In regard to the handicapped, we're now experiencing the first national guaranteed annual income plan that does not have the welfare taint, the Social Security Income Supplement. Thus, handicapped people are among the first of our leisure groups who are not retired, who at an early stage in their life development can make a decision as to whether or not they want to jump on, or off, a work ethic-dominated society.

A Typology of Leisure

The first research need that I would like to propose to the group is a typology of leisure that is related directly to career development and retirement planning options for the handicapped. We might start with a level you might call "unconditional" leisure. This is where activity can be pursued independent of any work objectives or motives. It is freely chosen, it is an end in itself, it has intrinsic value, and is not related to work. Yet when we go to another level which might be called "coordinated leisure" this is the kind of leisure activity that is related to work in both form and content. It is not required of the job itself, for sustenance, or for the compensation the job carries; yet it does have tremendous carry-over. For example, a carpenter or a machinist can accomplish do-it-yourself work in his own home situation, or he can help his neighbors and his friends; yet he's practicing the same work skills and he's exercising an acquired work trait at leisure. On the third level--the "complementary" level--there is a kind of leisure activity

that's independent of work in form, context, and requirement, yet it's a kind of activity that reinforces a social role. It gives a person status and social position and in many cases it compensates for inadequacies in work conditions. The machinist, for example, can compensate for the rote kinds of work he does by doing more exciting leisure-time things. At home, an indoor worker can get involved in the out-of-doors; the person who is in a very sedentary kind of job can be physically active. The fourth level is enforced leisure, the absence of work, which can occur in long-term layoffs or in retirement.

Some Other Research Areas

We need to determine just what the physical fitness levels are as related to various kinds of careers and the correlates of those activities in leisure and retirement in terms of motor perceptual abilities, motor skills, and an area quite overlooked with regard to handicapped persons--cardio-pulmonary medical problems.

We need to develop a community resource model which can be used to develop survival and socialization skills that are transferable directly to the job situation as well as to other aspects of life and retirement.

We need to determine the handicapped's nonwork options, particularly those which can still utilize a person's skills and provide substitutes or alternatives to work--volunteerism, the avocational activities, political action, consumerism, religion, and the various cultural arts which for generations have been a sign of men's and women's accomplishments.

We need to determine whether leisure is different from work in terms of the major community adjustment variables such as social class status and prestige.

We need to investigate the relationship of value orientation to leisure participation. The relation of value priorities to the discretionary uses of income and time provides a tremendous practical ground for developing insight into values and practice in decision making, which can be very directly related in later stages of life to decisions about work.

Another area for study would deal with the family and the various life-cycle transitions related to the lifelong process of learning. As Toynbee said some years ago, we can no longer divide education or learning into one stage called "preparation" and another stage called "application" because by the moment you're ready to apply, you're ready to relearn. Leisure should provide substantial opportunities to develop that kind of a continuing education construct.

One final question: How can we reduce architectural and attitudinal barriers to full utilization of the leisure and cultural resources in the community, including the use of public transportation systems, so that our handicapped population can have equal opportunity to enjoy its leisure?

RECOMMENDATIONS

The task set for the conference participants was to identify the most critical needs for research related to career education of the handicapped. To accomplish this task, the participants were divided into 10 working groups each of which, working independently, addressed the four focus areas of preparation, exploration, maintenance and mobility, and leisure and retirement.

The participants considered each of these focus areas in order, first listing all needs for research that resulted from initial brainstorming sessions, then selecting those they considered most critical. Finally, from this pool, they selected the top-priority research needs.

The participants' major concerns focused upon attitudes (of the handicapped and those who affect their lives), critical incidents, decision making, articulation among personnel who serve the handicapped, career education models, employability, physical mobility, and special demonstration and dissemination.

The top-priority research needs reported by the participants on the last day of the conference and the additional research needs they identified are reported on the following pages under each of these major concerns (attitudes, critical incidents, decision making, and so on). In each of these categories, the needs are expressed in the form of questions which are followed by suggested research strategies. The topics included among the top-priority and additional research needs are not listed in order of priority.

I. Top-Priority Research Needs

Attitudes

Although recognizing that applied research was the major orientation at this conference, the participants did make note of the need for basic research on the nature of attitude change.

Present attitudes tend to be based on erroneous impressions or fears, as well as a lack of tolerance for "differentness," that impede the handicapped person's opportunities for career development and employment. There is a need, first of all, to determine the level of awareness of what constitutes a handicapped person and then to develop an understanding of handicapping conditions and how the handicapped can be used in the total socioeconomic system.

How do families relate to the handicapped?

Survey vocational aspirations and work values of parents of the handicapped as they relate to their attitudes toward and expectations for the career development of the handicapped child.

Determine positive and negative characteristics of families which may influence the early development of the handicapped child's preparation for a career.

- Isolate and analyze major variables that influence family behavior, such as demographic, socioeconomic, sex, communication style, acceptance of the handicapped child, occupational level, and educational level.

- Adapt measurement techniques from the fields of mental hygiene and family studies.

- Observe and analyze family bahaviors.

Adapt existing techniques and develop new ones for family counseling and assessment of the effectiveness of these techniques in changing attitudes.

Investigate parental influence on the development of career attitudes of the handicapped child. For example, researchers might use the temperamental quality scale to collect baseline data and to make comparisons among various handicapping conditions.

How do employers relate to the handicapped?

Survey employers' attitudes about hiring the handicapped and procedures they use to recruit and hire the handicapped.

Survey employers' attitudes about the vocational potential of the handicapped.

Study the implications of intercultural communication processes for employer expectations of handicapped from diverse ethnic backgrounds and differences in verbal and nonverbal processes that tend to block communication.

Develop and evaluate training methodologies (e.g., case studies) to modify employer attitudes toward hiring the handicapped.

How do labor organizations relate to the handicapped?

Study unions that presently have handicapped members.

Develop ways to reach various labor organizations and to develop appreciation for who and what a handicapped person is and how he can become an asset to the union.

How do peers relate to the handicapped?

Study the influence of nonhandicapped peers on the career development of a child with a handicap.

Study how nonhandicapped workers accept handicapped coworkers.

- Measure attitudes before and periodically after the handicapped are hired.
- Evaluate the effects of educational programs and on-site counseling.

How do educational personnel relate to the handicapped?

Survey and observe educators, counselors, administrators, and industry trainers to determine their perceptions of career potentials for the handicapped and their own roles in furthering career education for handicapped students.

Assess the relationship between attitudes of educational personnel and how they develop and implement career education programs.

- Include community and individual variables such as race, socioeconomic level, and type of community.
- Evaluate staff behaviors.

How do the handicapped feel about themselves?

Study how the handicapped adolescent feels about his future possibilities for career choice and mobility.

Identify human models that affect career choices.

Survey opinions and attitudes of handicapped people regarding leisure.

Study the effects of having too much leisure time.

Assess the effect of specialized social programs (e.g., National Theater for the Deaf) on the self-concept of handicapped participants.

How do community attitudes affect the handicapped?

Determine how various sectors of the community perceive career potentials for the handicapped and how they perceive their roles in furthering career education and career opportunities for the handicapped.

Develop and validate ways of measuring how attitudes of family, peers, administrators, and employers affect the handicapped person's career planning and preparation for employment.

Develop and evaluate strategies to foster modification of attitudes and to promote awareness of the vocational potential of the handicapped.

Formulate and test hypotheses on elements of effective advocacy for handicapped children by parents, unions, industry, government, service organizations, and professional groups.

Assess the effects of specialized programs (e.g., National Theater for the Deaf) on the public's knowledge and attitudes toward the handicapped.

Critical Incidents

One group, with a heavy emphasis on rehabilitation and the outcomes of education after the secondary level, identified as the top-priority research need a study of the critical incidents which led to the loss of jobs by handicapped people and the critical incidents which led to lateral transferral or upward mobility. Knowing what symptoms or behaviors actually--rather than hypothetically--led to improvement or loss of jobs would provide the basis for other studies related to career education curriculum development and the development of early warning systems to prevent unnecessary job loss.

What recurring symptoms or behaviors are associated with lateral transferral and loss of job?

Study personal, cultural, familial, tribal, and other factors as well as the factors that are directly related to jobs.

Collect data on rehabilitation clients and special education students in work-study programs to determine recurring reasons for job loss.

Follow a large sample of handicapped workers to observe job behaviors and their relationship to maintaining or losing jobs.

Conduct retrospective longitudinal analyses of critical incidents that are related to successful and unsuccessful career adjustment.

Develop strategies for interventions of personal, cultural, and job-related adjustment training.

Decision Making

Three of the 10 teams at the conference reported their top-priority need to be research in decision making and problem solving and the development of coping skills. Noting that research questions submitted by the conference had a heavy emphasis on the need for continuous development, they stressed that career education efforts should develop these process skills to prepare the handicapped for careers, entry into the world of work, and maintenance and improvement of career potentials. The model developed by one group to illustrate the critical components and decision points is given as Figure 1 on the following page.

To what extent do handicapped students participate in the process of making decisions about their own careers?

Study the effects of this involvement.

Analyze roles of student, teachers, counselors, and peers.

What differential applications of coping strategies are needed?

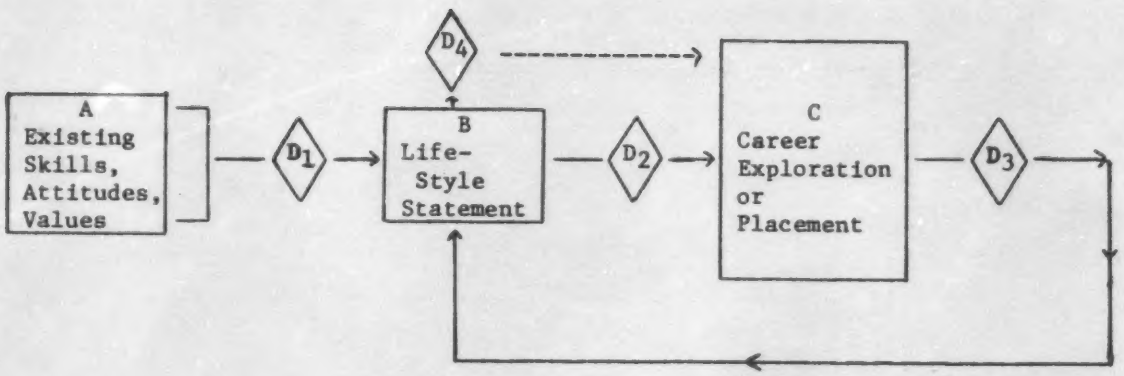
Identify and/or develop strategies to assess competency levels for decision making.

Survey how handicapped who are now successful have made their decisions.

Identify those basic/crucial problems that require decisions and coping mechanisms that are used at different age levels and in different settings.

Assess whether the skills needed by the handicapped are the same as, or different from, those needed by the nonhandicapped.

Figure 1: Decision-Making Model for Maintenance and Mobility in Career Education



The model is useful in showing how the maintenance and mobility function relates to other functions in career education: preparation, exploration, and leisure and retirement. It also shows the information feedback system and critical decision-making points that are used by client managers--and the handicapped themselves--to assess and consider change in job assignments for handicapped workers.

There are three <u>information bases</u>:

A - accumulated skills, attitudes, and values of individuals

B - the life-style statement of a given individual that results from base A

C - information that results from career experiences and explorations

There are four <u>decision-making points</u>:

D_1 - integration of skills, attitudes, and values to form a life style

D_2 - career exploration and selection

D_3 - matching of career experiences and explorations to original life-style statement; possible modification of the statement

D_4 - judgments about maintenance of career pattern or exploration and selection of new career opportunities

The model can serve as a framework for research and for program development.

How can decision-making and coping skills be developed?

Analyze the developmental sequence of coping skills and the cognitive and affective demands on these skills.

Develop objectives for instruction appropriate to those objectives.

Develop instructional and counseling interventions.

Develop follow-up counseling procedures to restructure existing coping skills and to develop new ones.

Analyze the differential effects of program applications on particular handicapping conditions and in particular settings.

Compare the career adjustment of those who have been in programs to develop coping skills to those who have not.

How do role models influence the career decision-making processes of the handicapped?

Assess visible positive role models that represent a whole range of career activities and establish dimensions of these roles.

Develop strategies to expose handicapped students to positive role models (video-tape packages and situational observations).

Evaluate the effectiveness of these strategies in improving the decision-making competencies of handicapped students.

Articulation among Personnel Who Serve the Handicapped

One group that was concerned about the oneness and separation in special education identified as a top-priority research need the question of how to develop better articulation among all agents involved in delivery services for the handicapped.

How do special education personnel perceive the adequacies of rehabilitation and counseling services? And how do personnel in these services perceive the adequacies of special educators?

How do educators, counselors, and parents interact with each other and with the handicapped?

How can articulation among individuals and groups be improved?

Career Education Models

Recognizing that the content of career education is based primarily on opinions and fragmented experiences of teachers and other professional workers, the participants saw a top-priority research need to identify developmental sequences of concepts, facts, and behaviors that are fundamental to competencies in career implementation. Out of such research should come the development of models for career education. The participants noted that since such development is beyond the capabilities of most states, it should be a federal priority. They did not discuss the need further, but reports from the preliminary sessions did detail pupils, personnel, curricula, delivery systems, and continuing education as components for program models.

How do handicapping conditions limit career potentials?

> Develop evaluation tools that will provide students, teachers, and counselors with information on the student's potential for career selection and vocational placement.
>
> Develop measurement strategies to predict student skill levels, beginning in elementary school years.
>
> Identify valid instruments for assessing, planning, recording, and reporting pupil progress.

Are there differences in perceptual, cognitive, and learning styles among children from diverse cultural, ethnic, or racial groups?

> Design career education programs that are consistent with the learning styles.

How can teachers be motivated to implement strategies for career education in their curricula?

> Provide opportunities for preservice and inservice experiences with new methodologies and innovative programs and field visits to business and industry.

How can parents be trained to work with the handicapped in ways that are consistent with in-school instruction?

Develop and field-test materials and training methods.

Does postplacement personnel counseling increase job retention and job satisfaction?

What are the unique and special needs for the development of personnel for career education of the handicapped?

Conduct job analyses of current personnel positions.

Can job-seeking, readiness, maintenance, and mobility skills be taught in such a way that these skills remain in the students' repertoire until needed?

Develop teaching strategies for different groups of students by age and type of handicap.

Evaluate effectiveness of alternative approaches by longitudinal studies.

Are job-related skills retained better when taught in job-related ways or when taught as academic studies? Are basic communication and calculation skills learned more effectively when integrated with occupational training programs?

How effective are current teaching technologies (e.g., television and audio-visual aids) in aiding handicapped students in their learning processes and career explorations?

Determine students' audio and visual requirements.

Compare varied means of display.

How can the handicapped be educated to understand their civil liberties?

Determine ways to make these concepts clear.

Develop instructional materials.

How can the handicapped be taught interpersonal communication skills for work and leisure activities and what particular skills are needed?

What recent training is necessary for young people or adults who become handicapped?

Include populations such as accident and stroke victims and amputees.

Study adjustment problems and the role of the family, employer, community, and the recently handicapped himself.

Can relevant aspects of the Minnesota Theory of Work Adjustment be used to develop viable curricula for career education of the handicapped?

Identify competencies, attitudes, experience, and knowledge in successful personnel.

Determine training-program content.

Develop a system to continuously update occupation information.

Demonstration programs in personnel preparation.

What teacher competencies are needed to integrate leisure-education activities in special education classrooms?

What counseling techniques are most effective for career and avocational guidance? What aspects of career exploration can most effectively be facilitated by individual counseling?

Prepare statements of desired outcomes as they relate to: self-concept, work attitude, awareness of career opportunities, and self-analyses of relationship to family and job.

Develop and evaluate experimental models for use at various school grade levels:

- career guidance models that differ from general educational counseling
- models that include staff counseling
- models for leisure counseling

Which personnel are effective in delivering counseling services to the handicapped?

Determine which mode or combination of modes (e.g., counseling, group process, or class instruction) of delivery is most effective.

What do the handicapped need to learn and when in the student's development should these needs be addressed?

Determine competency deficits in handicapped adults through surveys of employers, community agencies serving the handicapped, and from families.

Categorize these deficits by behaviors.

Using school-age norms, organize each learning area into developmental sequences of behavioral milestones.

Can skills in job seeking, readiness, maintenance, and mobility be taught in such a way that they will be retained until needed?

Assess which methods work for which skills and with which kinds of handicapped persons.

How does the development and utilization of leisure time complement the career-development process?

Analyze how handicapped students utilize leisure time:

- Study the effects of participation in special group activities as compared to participation in normal, integrated activities.
- Identify and analyze barriers to participation in community, civic, and recreational activities.
- Survey opinions, attitudes, and perceptions of the handicapped toward leisure.
- Develop a typology of leisure time activities engaged in by the severely handicapped.

Develop and evaluate comprehensive leisure education/counseling program models:

- a taxonomy of leisure activities related to career activities
- contributions that leisure activities make to specific career development objectives
- integration of concepts of leisure into existing subject areas
- longitudinal studies of leisure activities (e.g., practical and fine arts) and career attainment, comparing handicapped and nonhandicapped populations

What delivery and support services are needed to encourage and motivate handicapped women and girls to pursue their occupational potential?

> Develop models that will be useful to educational institutions and personnel in meeting the requirements of equal access and affirmative action laws.

How does the formal organizational structure of the school system relate to teacher effectiveness as measured by morale, expectations, and communication patterns?

Is mainstreaming the best administrative arrangement to provide career education to the handicapped?

> Study the effects mainstreaming has on children with different handicaps, personalities, and learning characteristics in relation to their career development and employability.

What existing supportive resources are available for training, retraining, and employment of the handicapped among employers and service groups at national, state, and local levels?

> Develop a model for a continuum of career and leisure time education that will provide adequate services but avoid duplication.
>
> Investigate the availability and adaptation of training programs (e.g., mobile units) for avocational and recreation activities:
>
> - determine the needs for programs that facilitate the transition from full-time employment to work disruptions.

Can schools be influenced to adopt the concept of flexible entry-reentry for handicapped people?

> Establish a prototype administrative policy statement.
>
> Determine what training or retraining is needed for young people or adults who become handicapped.

II. Additional Research Needs

There were additional research needs the conference participants considered critical but which they did not identify as top priority. These are described on the following pages.

Employability

Little is known about what competencies are needed to reach and maintain levels of effective performance on job-related tasks or how handicapping conditions dictate the extent to which these skills can be developed. Also, little is known about personal-social habits that influence the handicapped worker's employability. Moreover, with the advent of affirmative action legislation, ways must be found to help employers hire and make maximum use of the handicapped.

Are handicapped students who were trained in a curriculum based on a systematic analysis of local job opportunities more successful in job placement than those who were trained in a more standardized curriculum?

What occupational and personal skills are needed in jobs for which the handicapped are most likely to be hired?

Develop a typology of competencies of the handicapped and the distribution and incidence of these competencies among types of handicap:

- collation of jobs in which handicapped people have succeeded
- analysis of the competencies demonstrated on these jobs

Develop a typology of job competencies that are required for job-tasks in job settings as they are now defined and as they will be redefined and altered in compliance with affirmative action requirements:

- task-analysis studies of specific occupations and an examination of the degree of fit for various handicapping conditions

Identify differences between the technical skills that are needed to get a job and those necessary to keep abreast of changes in job requirements.

Develop and publish models based on biographical work histories of handicapped workers that will serve as information and motivation. Show case studies separately by categories and appropriate subcategories:

- meeting job requirements
- getting employed
- holding and getting ahead on the job

- motivation for work and satisfactions derived
- life style afforded by the job
- work attitudes and values
- job changes

Develop a schema of the gradual development of those personal-social and occupational skills that are needed for mobility on the job. The schema should take into account the transition handicapped persons make in moving from institutional training programs into society and the work experience and further, to self-sufficiency and upward mobility.

Identify special aids that are necessary to compensate for specific disabilities that may interfere with effective job performance.

Determine the effect of inappropriate social skills and mannerisms in job maintenance.

To what extent does dependency interfere with the handicapped's ability to obtain and hold employment? To what extent can independence be fostered by parents, teachers, and employers?

How can trade unions and potential employers be helped to utilize the competencies of the handicapped in compliance with affirmative action requirements?

Hold workshops on:

- legal rights
- workman's compensation
- job restructuring
- affirmative action
- architectural barriers
- motivation and incentives

Demonstrate ways of providing employment for the handicapped who cannot be placed in business.

What will be the impact of economic conditions, national fiscal policies, and new and emerging occupations upon vocational opportunities for handicapped people?

Develop and implement a uniform system for reporting job placement and job follow-up.

Physical Mobility

How do various handicapping conditions relate to mobility?

Identify the physical skills that are required for utilization of various modes of transportation.

Evaluate what impact the ability to drive has on motivation and employability of different kinds of handicapped people.

Analyze characteristics of the transportation system and determine what improvements would lead to greater mobility for the handicapped.

Is there a higher rate of employment and participation in leisure time activities where public transportation is readily available?

Study employment and independent living patterns before and after the advent of mass transit.

What are the physical and environmental barriers to mobility and how can they be reduced?

Study schools, work and recreation environments, and transportation systems.

Develop and demonstrate innovations to reduce barriers.

Special Demonstration and Dissemination

What is the present state of the art of career education for the handicapped?

Develop a guide to career education that includes career-developing experiences (individually sequenced) and assessment tools.

Sponsor research of successful programs by experts in special education, career and vocational education, and vocational rehabilitation as well as able researchers.

Summary

While the conference format focused on four major topic areas of career education for the handicapped (preparation, exploration, maintenance and mobility, and leisure and retirement), it should be noted that the participants saw career education as a continuum beginning with early identification of handicapping conditions and continuing through programs of preparation and intervention into retirement. And their concerns encompassed living skills and leisure time activities as important adjuncts to efforts to prepare the handicapped for the world of work.

The participants' major concern was finding out what knowledge exists and then developing ways to translate this knowledge into methodologies and programs for career education of the handicapped. They saw a need for a central information service for those working with the handicapped and for the handicapped themselves.

From the research ideas generated during the two days of the conference, it was possible to construct a matrix within which one might approach research related to career education for the handicapped. This matrix has three dimensions: Institutions of Human Society, Life and Career Elements, and Career Education Objectives. Figure 2 shows these three essential dimensions. The cell that is cross-hatched in Figure 2 has been enlarged and expanded in Figure 3 to illustrate how the matrix may be used to set research questions within the context of the essential areas of concern. Furthermore, it has been expanded to include subcategories in the Educational Awareness dimension. For example: To achieve the career education objective of educational awareness, what attitudes concerning living skills are necessary for success in the economic institution? Looking at the cell on the right side of the same matrix, one might ask: For handicapped persons to achieve the career education objective of educational awareness, what information about living skills is necessary for success in the economic institution?

The matrix evolved from the conference discussions and was not a framework within which research needs were identified. Therefore, the relationship of reported research needs to the matrix is not readily apparent and may be a proper topic for further study to identify major program and, within these, specific project areas.

Figure 2: The Essential Areas of Research

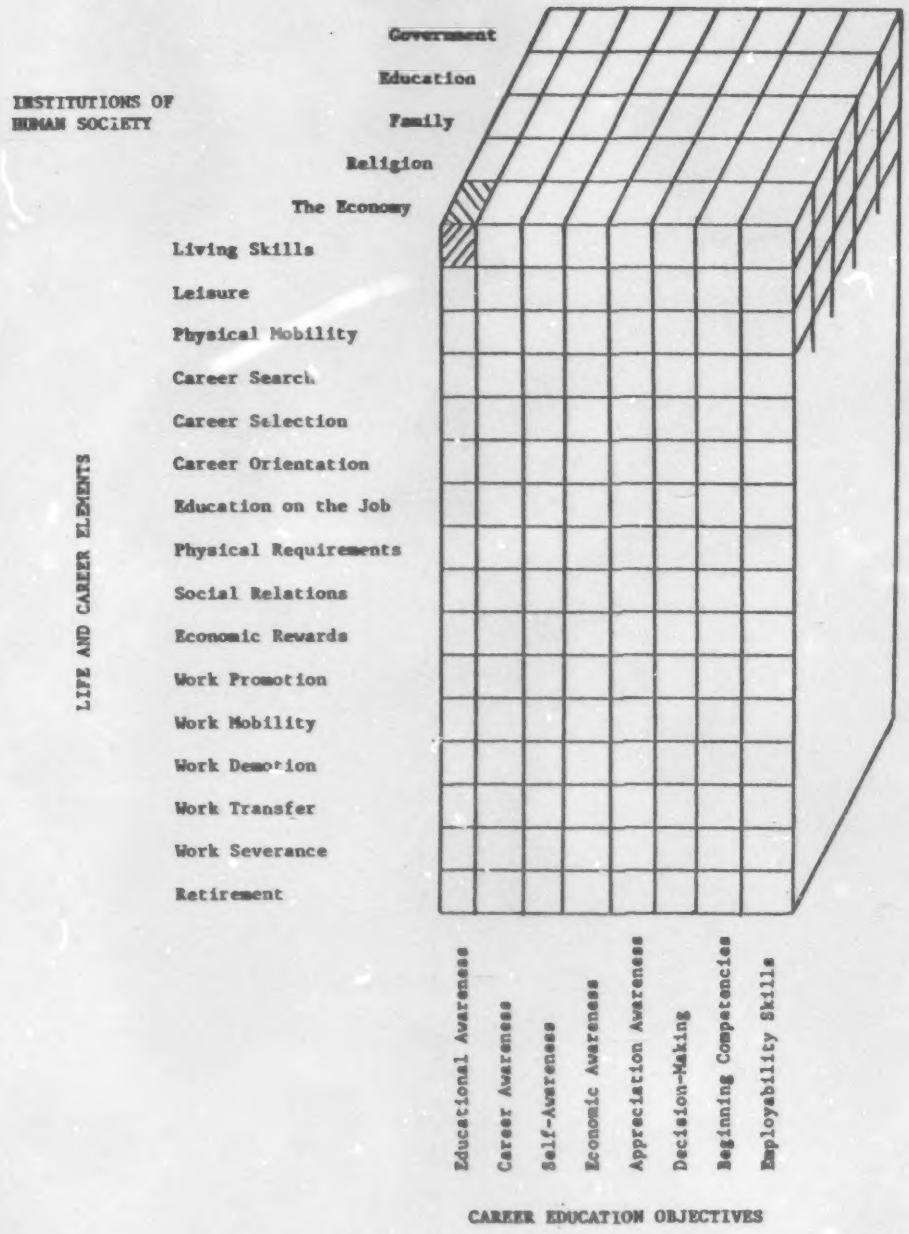
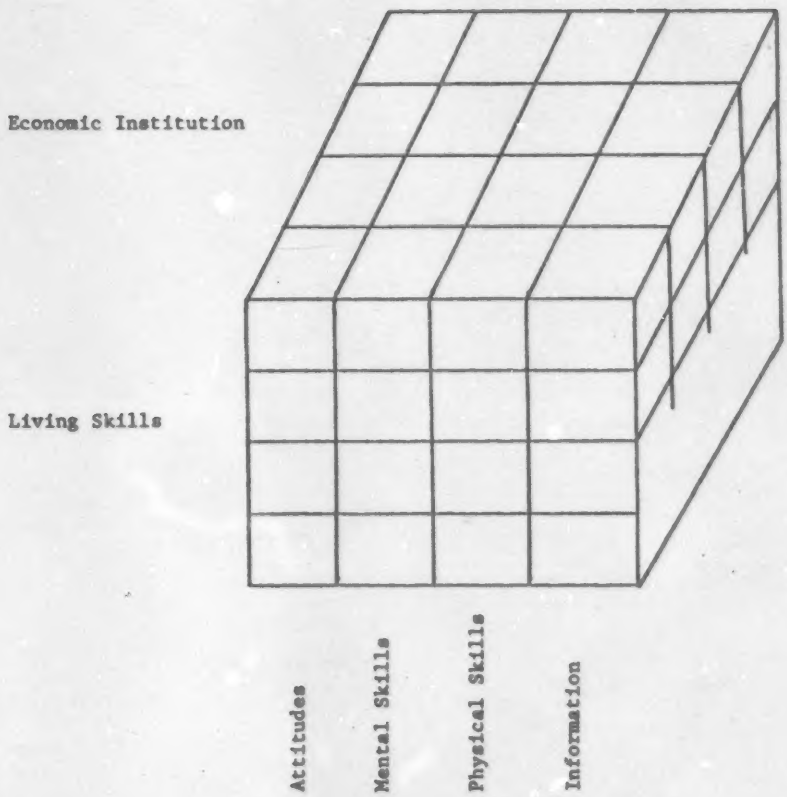


Figure 3: Close-up of Figure 2



The conference participants, although working within a time frame that was very limited for a task of this scope, were successful in identifying an array of needs that are critical to career education of the handicapped, defining researchable questions to address these needs, and suggesting studies to seek answers to these questions and ways of implementing study findings.

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